PROCESS FOR MAKING METAL FLAKES

Patent number:	EP1131473
Publication date:	2001-09-12
Inventor:	JOSEPHY KARL (US); RETTKER JAMES P (US); ENLOW HOWARD H (US)
Applicant:	AVERY DENNISON CORP (US)
Classification:	
- international:	C23C14/00; C09C1/00
- european:	B22F1/00A2; C09D5/36; C09D7/12S; C23C14/00B
Application number:	EP19990953254 19991022
Priority number(s):	WO1999US24782 19991022; US19980105399P 19981023

Also published as:

- WO0024946 (A1)
- CA2347830 (A1)
- EP1131473 (B1)
- DE69913982T (T2)
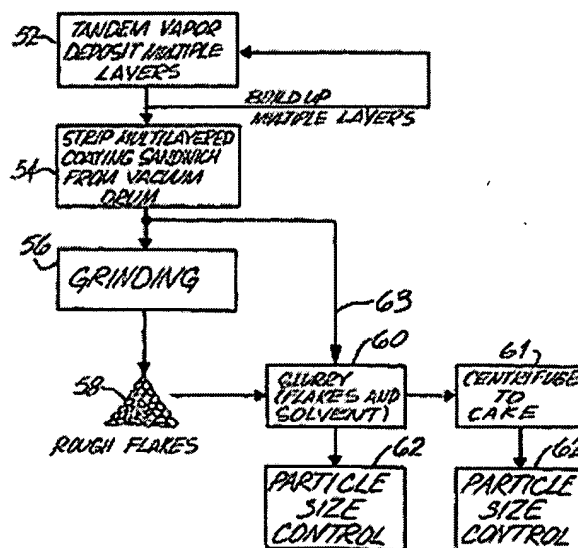- DE69913982D (T2)

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Abstract not available for EP1131473
Abstract of corresponding document: **WO0024946**

A process for making high aspect ratio metal flakes economically and at high production rates comprises applying a multi-layer sandwich of vapor deposited metal and release coats in alternating layers to a rotating chilled drum or suitable carrier medium contained in a vapor deposition chamber. The alternating metallized layers are applied by vapor deposition and the intervening release layers are preferably solvent or water soluble materials applied by suitable coating or vapor deposition sources contained in the vapor deposition chamber. The release coat materials can be a thermoplastic solvent-soluble polymer, a water soluble inorganic salt, or a high boiling point dissolvable wax-like substance. The multi-layer sandwich built up in the vacuum chamber is removed from the drum or carrier and treated with a suitable solvent or water to dissolve the release coating from the metal in a stripping process that leaves the metal flakes essentially release coat free. The solvent or water and dissolved release material are then removed by centrifuging to produce a cake of concentrated flakes which can be air milled and let down in a preferred vehicle and further sized and homogenized for final use in inks, paints or coatings.

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